

Can dogs transmit Ebola?

October 9 2014, by Mariette Le Roux

Following the uproar over the killing of an Ebola patient's dog in Spain, experts said on Thursday there was a risk of canines carrying the deadly virus but none that they could infect humans.

A study published in 2005 pointed to a theoretical risk that dogs could pass the virus to humans through urine, faeces or saliva, but there is no evidence of this ever having happened, virologists said.

They recommended caution given the lack of firm data.

"The wise move is to... assume they (dogs) do represent a risk to humans," Andrew Easton, a professor at Britain's Warwick University, told AFP.

Spanish authorities on Wednesday put down the pet dog of a nurse hospitalised with Ebola after treating two patients who died of the disease in Madrid.

The decision sparked protests from animal rights groups, some of whom scuffled with police outside the apartment where the dog, Excalibur, had been left by his owners when they were taken into quarantine.

Bats are known to carry the Ebola virus in central Africa without showing symptoms. Monkeys and apes also get the virus and get ill in the same way as humans.

But a lack of data on domestic animals has clouded the issue. The only

research into the question was a study published in the journal *Emerging Infectious Diseases* nine years ago.

Investigators probing a 2001-02 Ebola outbreak in Gabon found traces of antibodies to the virus in dogs—a tell-tale sign that the animals had at some point been infected.

The dogs were from areas where there had been several cases of Ebola in humans and wild animals.

The study was unable to say whether the dogs had picked up the virus from a natural source, such as bats, monkeys, apes—or from humans themselves.

Nor was it designed to answer the bigger question: could the dogs, in turn, infect humans?

"The answer is that we don't know, because no one has actually studied it," said Easton.

"But if those dogs are carrying the virus, they are definitely a potential source. They have to be considered a risk to anyone who handles the dogs or comes into close contact with secretions or faecal material from those dogs."

'Precautionary principle'

Excalibur, a Spanish cross-breed, was not diagnosed as having the virus but was killed as a precautionary measure.

Spanish authorities obtained a court order to euthanise the dog, citing a risk that it could be a virus "carrier".

"There is no scientific evidence that domestic animals play an active role in the transmission of this disease to humans," Bernard Vallat, director general of the World Organisation for Animal Health (OIE), told AFP.

Nevertheless, he stressed the importance of "the precautionary principle" and said OIE staff in West Africa were keeping a vigilant eye out for new data concerning [domestic animals](#).

The US Centers for Disease Control and Prevention (CDC) stressed on its Twitter feed there had been "no reports of pets becoming sick" or "playing a role in transmission of Ebola to humans".

It said it was working with the American Veterinary Medical Association and others to develop "guidance for the US pet population".

Would it be advisable to kill domestic [dogs](#) in the outbreak area?

"They don't really have the manpower," said Easton. And even if they did, dog-to-human transmission was probably "not the highest risk—the higher risk is human-to-[human](#) contact."

For Eric Leroy of France's IRD research institute, who co-authored the Gabon study, killing Excalibur had robbed science of a rare opportunity.

Had it stayed alive, "this dog could have provided valuable answers to the world's questions: can a dog be sick with Ebola, can it excrete the [virus](#), can it contaminate humans?" said Leroy.

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